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| 10/561,763 | 12/21/2005 | Philip Green | 28193/25037 | 1616 |
| 4743 | 7590 | 06/08/2009 | EXAMINER | |
| MARSHALL, GERSTEIN & BORUN LLP 233 SOUTH WACKER DRIVE 6300 SEARS TOWER CHICAGO, IL 60606-6357 | | | HEINCER, LIAM J | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|
| Office Action Summary | Application No. 10/561,763 | Applicant(s) GREEN ET AL. |
| | Examiner Liam J. Heincer | Art Unit 1796 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 March 2009.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) 14-17, 24-29 and 31-40 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-9 is/are rejected.

7) Claim(s) 10-13, 18-23 and 30 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/06)
 Paper No(s)/Mail Date 4/7/09 and 12/21/05

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I, claims 1-13, 18-23, and 30 in the reply filed on March 20, 2009 is acknowledged. The traversal is on the ground(s) that the Office has failed to establish a lack of unity by describing the technical feature of each group. This is not found persuasive because the restriction requirement showed that the groups lack a special technical feature. The common technical feature, as outlined in the restriction requirement, is the composite material of claim 1. In order for this feature to be a special technical feature, the technical feature must contribute over the prior art. See MPEP § 1893.03(d). As WO 03/022085 discloses the technical feature, it cannot, by definition, be a *special* technical feature. The fact that the groups contain the same technical feature does not preclude *a posteriori* lack of unity.

The requirement is still deemed proper and is therefore made FINAL.

Claims 14-17, 24-29, and 31-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 20, 2009.

Claim Objections

Claims 10-13, 18-23, and 30 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 10-13, 18-23, and 30 not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigwald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

Considering Claim 3: In the present instance, claim 3 recites the broad recitation "olefin polymer", and the claim also recites "for example polypropylene or an ethylene polymer such as high pressure polyethylene (LDPE), LLDPE or HDPE" which is the narrower statement of the range/limitation.

Considering Claim 5: In the present instance, claim 3 recites the broad recitation "natural elastomer", and the claim also recites "such as latex rubber" which is the narrower statement of the range/limitation.

Considering Claim 7: In the present instance, claim 3 recites the broad recitation "EP rubber", and the claim also recites "such as EPDM" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Plant (WO 03/022085).

Considering Claims 1, 2, 4, 6, and 7: Plant teaches a composite material which comprises a polyurethane foam (11:16-20) impregnated/intimately mixed with a dilatent compound (11:5-14).

Plant does not teach mixing the dilatent and foam prior to foaming the material. However, the instant claim is directed towards a product by process. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). See MPEP § 2112. As Plant teaches that the dilatant compound is impregnated in the foam, the product would be materially the same structure as a foam thoroughly admixed with dilatent prior to foaming.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Witt et al. (US Pat. 5,498,640).

Considering Claims 1 and 3: Witt et al. teaches a composite comprising a mixture (3:27-31) of a thermoplastic polymer that can be a polyolefin (2:24-57) and an boron-siloxane elastomer/dilatent (2:5-6). Witt et al. teaches foaming the composite after mixing (3:27-31).

Considering Claim 2: Witt et al. teaches melt mixing/blending the components (3:27-31).

Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Christy (US 5,319,021).

Considering Claims 1, 2, and 4-7: Christy teaches a composite comprising a mixture of polysioxane-boron putty compound/dilatent and a natural or synthetic rubber/elastomer (2:6-24). Christy teaches that the synthetic rubber can be a siloxane rubber (claim 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plant (WO 03/022085) as applied to claim 6 above, and further in view of Anderson et al. (US 2004/0038018).

Considering Claims 8 and 9: Plant teaches the composite material of claim 6 as shown above.

Plant does not teach the elastomer as being a natural elastomer. However, Anderson et al. teaches using a thermoplastic elastomer, possibly comprising a polyester (¶0044-47) as an energy absorbent foam (¶0006). Plant and Anderson et al.

are analogous art as they are concerned with the same field of endeavor, namely energy absorbing foams. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the thermoplastic elastomer foam of Anderson et al. in the composite of Plant, and the motivation to do so would have been, as Anderson et al. suggests, thermoplastic elastomers have high energy absorption and processability (¶0006).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, 6, and 7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 17-19 of U.S. Patent No. 7,381,460. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 19 of patent '460 teaches a composite comprising a dilatant and a elastomeric polyurethane, where the dilatant is present in the polymer matrix, and the polymer is foamed in the presence of the dilatant (claim 19).

Claims 1, 2, 4, 6, and 7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 19 of copending Application No. 12/117,940. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 19 of patent '460 teaches a composite comprising a dilatant and a elastomeric polyurethane, where the dilatant is present in the polymer matrix (claim 19).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796

LJH
June 3, 2009